CLAIM AMENDMENTS

1. (Currently amended) [[A]] An isolated nucleic acid consisting of SEQ ID NO: 1 where said sequence [[which]] encodes a deregulated 3-phosphoglycerate dehydrogenase, which in comparison to natural 3-phosphoglycerate dehydrogenase has reduced feedback inhibition through L-serine ~~containing a gene serA according to SEQ ID No. 1~~ where said nucleic acid is a fragment of an SerA gene.

2. (Currently amended) [[A]] An isolated nucleic acid consisting of SEQ ID NO: 2 where said sequence [[which]] encodes a deregulated 3-phosphoglycerate dehydrogenase , which in comparison to natural 3-phosphoglycerate dehydrogenase has reduced feedback inhibition through L-serine ~~containing a gene serA according to SEQ ID No. 2~~ where said nucleic acid is a fragment of an SerA gene.

3. (Currently amended) [[A]] An isolated nucleic acid consisting of SEQ ID NO: 3 where said sequence [[which]] encodes a deregulated 3-phosphoglycerate dehydrogenase , which in comparison to natural 3-phosphoglycerate dehydrogenase has reduced feedback inhibition through L-serine. ~~containing a gene serA according to SEQ ID No. 3~~ where said nucleic acid is a fragment of an SerA gene.

4. (Currently amended) [[A]] An isolated nucleic acid consisting of SEQ ID NO: 4 where said sequence [[which]] encodes a deregulated 3-phosphoglycerate dehydrogenase , which in comparison to natural 3-phosphoglycerate dehydrogenase has reduced feedback inhibition through L-serine ~~containing a gene serA according to SEQ ID No. 4~~ where said nucleic acid is a fragment of an SerA gene.

5. (Currently amended) [[A]] An isolated nucleic acid consisting of SEQ ID NO: 5 where said sequence [[which]] encodes a deregulated 3-phosphoglycerate dehydrogenase , which in comparison to natural 3-phosphoglycerate dehydrogenase has reduced feedback inhibition through L-serine ~~containing a gene serA according to SEQ ID No. 5~~ where said nucleic acid is a fragment of an SerA gene.

6. (Currently amended) [[A]] An isolated nucleic acid according to claim 1, claim 2, claim 3, claim 4 or claim 5 isolated from coryneform bacteria.

7. (Currently amended) [[A]] An isolated nucleic acid according to claim 1, claim 2, claim 3, claim 4 or claim 5 isolated from Corynebacterium or Brevibacterium.

8. (Currently amended) [[A]] An isolated nucleic acid according to claim 1, claim 2, claim 3, claim 4 or claim 5 isolated from Corynebacterium glutamicum or Brevibacterium flavum.

9. (Currently amended) A recombinant gene structure containing at least one nucleic acid according to claim 1, claim 2, claim 3, claim 4 or claim 5 as well as regulatory sequences operatively linked therewith.

10. (Currently amended) A vector containing a recombinant gene structure according to claim 9 as well as additional nucleotide sequence for selection, replication in a host cell or for interaction in a host cell genome.

11. (Currently amended) A mutant deregulated 3-phosphoglycerate-dehydrogenase or a part thereof, which in comparison to natural 3-phosphoglycerate dehydrogenase has reduced feedback inhibition through L-serine ~~loaded by means of~~ expressed by a nucleic acid sequence, which consists of SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 4, or SEQ ID NO: 5, respectively, expressing an amino acid sequence ~~selected from the group~~ consisting of SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, [[and]] or SEQ ID NO: 11 respectively.

12. (Currently amended) A mutant deregulated 3-phosphoglycerate-dehydrogenase , which in comparison to natural 3-phosphoglycerate dehydrogenase has reduced feedback inhibition through L-serine according to claim 11 with an amino acid sequence ~~according to~~ consisting of SEQ ID No. 7.

13. (Currently amended) A mutant deregulated 3-phosphoglycerate-dehydrogenase , which in comparison to natural 3-phosphoglycerate dehydrogenase has reduced feedback inhibition through L-serine according to claim 11 with an amino acid sequence ~~according to~~ consisting of SEQ ID No. 8.

14. (Currently amended) A mutant deregulated 3-phosphoglycerate-dehydrogenase , which in comparison to natural 3-phosphoglycerate dehydrogenase has reduced feedback inhibition through L-serine according to claim 11 with an amino acid sequence ~~according to~~ consisting of SEQ ID No. 9.

15. (Currently amended) A mutant deregulated 3-phosphoglycerate-dehydrogenase , which in comparison to natural 3-phosphoglycerate dehydrogenase has reduced feedback inhibition through L-serine according to claim 11 with an amino acid sequence ~~according to~~ consisting of SEQ ID No. 10.

16. (Currently amended) A mutant deregulated 3-phosphoglycerate-dehydrogenase , which in comparison to natural 3-phosphoglycerate dehydrogenase has reduced feedback inhibition according to claim 11 with an amino acid sequence ~~according to~~ consisting of SEQ ID No. 11.

17. (Previously presented) A polypeptide according to claim 11 derived from coryneform bacteria.

18. (Previously presented) A polypeptide according to claim 11 derived from Corynebacterium or Brevibacterium.

19. (Previously presented) A polypeptide according to claim 11 derived from Corynebacterium glutamicum or *Brevibacterium flavum*.

20. (Previously presented) A microorganism containing at least one nucleic acid according to claim 1, claim 2, claim 3, claim 4 or claim 5 in replicatable form and which by comparison with the wild type microorganism is expressed in an amplified manner and/or has its copy number increased.

21. (Currently amended) A microorganism according to claim 20 containing in replicable form a recombinant gene structure ~~containing~~ consisting of the at least one nucleic acid as well as regulatory sequences operatively linked thereto and additional nucleotide sequences for selection, replication, in a host cell or for interaction in a host cell genome.

22. (Currently amended) A microorganism according to claim 20 expressing at least one amino acid sequence ~~selected from the group~~ consisting of SEQ ID NO. 7, SEQ ID NO. 8, SEQ ID NO. 9, SEQ ID NO. 10 [[and]] or SEQ ID NO. 11 which, by comparison to the corresponding wild type line shows an active deregulated 3-phosphoglycerate-dehydrogenase with reduced feedback inhibition.

23. (Previously presented) The microorganism according to claim 20 that is a Coryneform bacterium.

24. (Previously presented) The microorganism according to claim 20 that belongs to the familia Corynebacterium or Brevibacterium.

25. (Previously presented) The microorganism according to claim 24 that belongs to Corynebacterium glutamicum or Brevibacterium flavum.

26. (Currently amended) A probe for identifying and/or isolating genes which encode ~~Proteins~~ a deregulated 3-phosphoglycerate dehydrogenase participating in the biosynthesis of L-serine, said probe ~~selected from the group~~ consisting of SEQ ID NO. 13, SEQ ID NO. 14, SEQ ID NO. 15, SEQ ID NO. 16, SEQ ID NO. 17, SEQ ID NO. 18, [[and]] or SEQ ID NO.19 and containing a marker suitable for detection.

27. (Canceled)

28. (Currently amended) A method for microbially producing L-serine from a carbohydrate, fat or oil, fatty acid, alcohol or organic acid, in a culture medium, containing nitrogen sources and phosphorous sources, which comprises the steps of:

a) providing at least one nucleic acid encoding a deregulated 3-phosphoglycerate dehydrogenase, [[and]] selected from the group consisting of SEQ ID NO. 1, SEQ ID NO. 2, SEQ ID NO. 3, SEQ ID NO. 4 and SEQ ID NO. 5, isolated from a Coryneform bacterium, and transformed into a Coryneform bacterium, and then expressed to form the deregulated 3-phosphoglycerate dehydrogenase, whereby the gene expression and/or the activity of the corresponding encoded deregulated 3-phosphoglycerate dehydrogenase is increased with respect to the corresponding microorganism which has not been genetically altered;

b) microbially producing L-serine by expressing the at least one nucleic acid which encodes a deregulated 3-phosphoglycerate dehydrogenase in said genetically modified microorganism from step a) to microbially convert said carbohydrate, fat or oil, fatty acid, alcohol or organic acid in said culture medium to L-serine; and

c) isolating the correspondingly formed L-serine from the culture medium.

29. (Previously presented) The method for microbially producing L-serine from a carbohydrate, fat or oil, fatty acid, alcohol or organic acid, in a culture medium, defined in claim 28 wherein the nucleic acid which encodes a deregulated 3-phosphoglycerate dehydrogenase is SEQ ID NO.1.